THE NAVAJO BELT-WEAVER.

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(With Plate XXVII.)

For a number of years the writer of the present article lived in the northwestern part of New Mexico, and while there such time as could be spared from his duties as a military surgeon at one of the stations in that little frequented part of our country, was entirely given over to studies of everything the region afforded.

The camera and pencil were constantly in use and the several tribes of Indians studied with their simple arts, their habits, and their history. I have watched the native weavers, both among the Zuni and the Navajos, manufacture their beautiful blankets, belts and sashes, fabrics now so celebrated in works devoted to the ethnology of these interesting people. Among the Navajos one will see a great many blankets made before an opportunity will be presented for him to observe the labors of a belt-weaver. The reason for this is, that blankets are a universal necessity with them, while the belt is principally used as a supplementary adornment in dress. As my time for leaving the country drew near I almost despaired of getting a good photograph of the belt-weaver and the study of the loom she used. But a month before my departure an Indian came into my study one morning, beaming all over with the welcome information that one of the best weavers in the tribe had started the making of a belt in front of one of their huts. These Indians were then building close to the confines of the garrison.

The first day I studied her methods of procedure and the second day I succeeded in obtaining several excellent pictures of this weaver at work. My best result is here offered as an illustration, and it well shows the entire scene. The woman has rigged up her loom in front of her house; she is busily employed in her weaving and her child sits beside her. Standing up by the loom is an excellent figure of a Navajo. Indian wearing the dress of the daily costume of the men of his tribe (See Plate xx.)

Navajos rear their own sheep, spin their own wool, manufacture their own dyes, and, as we have seen, weave their own blankets. And surely it is a sight not easily forgotten to see one of these superbly colored and

woven fabrics coming off a loom made from undressed and unseasoned pieces of timber from the forest, at the hands of an Indian, the representative of a civilization so entirely primitive. European art has to be sure slightly affected this industry, but even to-day its influence is easily traced; and apart from this these *serapes* and belts as now made saw their origin among the aborigines themselves.

Among all the native weavers of the southwest the Navajos have no equals and are indeed far in advance of any of the others in this line of manufacture.

The weaver had constructed the subvertical, outside part of the frame of her loom of two trunks of small pine trees, averaging a little over 3 inches in diameter, and from which the bark was not removed. Parallel to each other, and placed about a yard apart, these she had fixed in a slanting position against the front of her house outside. The upper ends were strapped to the house, and the lower ends slightly planted in the earth, being held more secure there by a few stones. Next she had firmly tied on cross pieces, a double one a few inches from the top, and a single one at about a foot above the ground. Over these cross pieces the warp passes, and in such a manner as to produce a double shed only. Then a smooth short rod is made to take up the alternate threads of the warp above the intersection or in the upper shed. This is easily seen in the engraving. Below the intersection of the threads of the warp the weaver serves the lower shed with a set of healds, which are usually composed of yarn, have their own rod, and as in the case of the rod above the intersection, include alternate threads of the warp. When drawn towards the weaver these healds serve the purpose of opening the lower shed, and still another short rod is used to keep the threads in place, which is also well seen in the figure, where the woman has her hands resting upon the batten, a smooth, flat, and rather narrow piece of hard wood. This is the last and yet one of the most important adjuncts composing this primitive loom, and is used by the weaver in turning it horizontally to open the shed to admit the passage of the weft, and afterwards to pound the latter down firmly into its place as the weaving proceeds.

These belt-looms as in use among the Navajos are not always exactly alike in their construction; for we find in some of them that the side posts of the frame are omitted, and the upper cross piece is fastened to a tree, and the lower one served with a loop of rope through which the weaver passes her limbs and then sits down upon, thus holding the warp of her belt firm and tense by her own weight as she sits cross-legged afterwards at her work. Other modifications of this simple loom are also to be seen in the contrivances in use among the Zunians and other Pueblo tribes, and the reare a number of departures from the main details of the weaving (also to be noted) as we have described them above.

Nearly all the belts and the blankets manufactured by these tribes

are made by their women, though it is not difficult to find among them also most excellent male weavers, and a very elegant blanket I once secured from the Navajos was made by a man, and its weaving took him considerably over a month to accomplish. A good belt can usually be bought for about \$12.

Curves are never found in the figure patterns on the belts or blankets, but the employment of horizontal stripes, the diagonals, and the lozenge are interwoven with a variety that appears to be almost endless in the matter of design. The leading colors used are red, brilliant orange yellow, a blue, and by combination a green, and finally black, white, and gray.

The manufacture of these dyes is an exceedingly interesting process, but its description does not properly fall within the scope of the present article.

As civilization advances westward and makes intrusion into the haunts of these simple people these aboriginal industries of theirs must eventually die out rather than be stimulated and enhanced by the contact. For with it civilization brings bright and cheap dyes of many shades; excellent Germantown wools that are not expensive; but more fatal than any of these, very good and durable blankets, of bright tints, that may be purchased by these Indians for a few dollars at the store of the trader, and thus obviate the tedious necessity of any further manufacture of their own in the future.